IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Santosh Shanbhag Richard L. Hammons Balakumar N. Kaushik Vincent W. Guan	§ § § § § §	 Art Unit: 2455
Serial No.: 10/767,405	§ §	Examiner: Michael Young Won
Filed: January 29, 2004	§ §	Docket No. 112-0136US
For: Isolation Switch for Fibre Channel Fabrics in Storage Area Networks	§ § §	Customer No.: 85197

AMENDED APPEAL BRIEF

Via USPTO EFS
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I. REAL PARTY IN INTEREST

The real party in interest is Brocade Communications Systems, Inc.

II. RELATED APPEALS AND INTERFERENCES

An Appeal Brief was filed on June 1, 2009 in related case, Serial No. 11/258,510.

An Appeal Brief was filed on March 27, 2009 in related case, Serial No. 11/208,412. That case has now been allowed.

III. STATUS OF CLAIMS

Originally filed claims:	1-106.
Added claims:	107-117.
Claim cancellations:	None.
Presently pending claims:	1-117.
Presently appealed claims:	1-117.
Presently allowed claims:	None.
Presently objected claims:	None.

IV. STATUS OF AMENDMENTS

There were no amendments filed subsequent to the Final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This section provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal. Each element of the claims is identified with a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites a data switching device (Fig. 1, isolation blade 100; ¶¶0029, 0030) for connecting to a series of nodes (Fig. 1, host blades 104; ¶0029) and to a first fabric (Fig. 1, enterprise fabric 108; ¶0029), the device comprising:

a plurality of fabric ports (Fig. 1, F_ports; ¶0029) for coupling to the series of nodes;

at least one node port (Fig. 1, Virtual N_port; ¶0029) for connecting to the first fabric; and

a switch (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

Independent claim 9 recites a Fibre Channel switch (Fig. 1, isolation blade 100; ¶¶0029, 0030) for connecting to a series of nodes (Fig. 1, host blades 104; ¶0029) and to a first fabric (Fig. 1, enterprise fabric 108; ¶0029), the switch comprising:

a plurality of F_ports (Fig. 1, F_ports; ¶0029) for coupling to the series of nodes;

at least one N_port (Fig. 1, Virtual N_port; ¶0029) for connecting to the first fabric; and

a switch circuit (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

Independent claim 17 recites a network comprising:

a series of nodes (Fig. 1, host blades 104; ¶0029);

a first fabric (Fig. 1, enterprise fabric 108; ¶0029); and

a data switching device (Fig. 1, isolation blade 100; ¶¶0029, 0030) connected to said series of nodes and to said first fabric, said device including:

a plurality of fabric ports (Fig. 1, F_ports; ¶0029) coupled to said series of nodes;

at least one node port (Fig. 1, Virtual N_port; ¶0029) connected to said first fabric; and

a switch (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

Independent claim 28 recites a network comprising:

a series of nodes (Fig. 1, host blades 104; ¶0029);

a first fabric (Fig. 1, enterprise fabric 108; ¶0029); and

a Fibre Channel switch (Fig. 1, isolation blade 100; ¶¶0029, 0030) connected to said series of nodes and to said first fabric, said switch including:

a plurality of F_ports (Fig. 1, F_ports; ¶0029) coupled to said series of nodes;

at least one N_port (Fig. 1, Virtual N_port; ¶0029) connected to said first fabric; and

a switch circuit (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

Independent claim 39 recites a network comprising:

a series of nodes (Fig. 2, host blade 104; ¶0031), each having two ports;

a first fabric (Fig. 2, enterprise fabric 108; ¶0029); and

two data switching devices (Fig. 2, isolation switch blades 100A, 100B; ¶0031), each connected to one port of each of said series of nodes and to said first fabric, each said device including:

a plurality of fabric ports (Fig. 1, F_ports; ¶0029) coupled to said one port of said series of nodes;

at least one node port (Fig., Virtual N_port; ¶0029) connected to said first fabric; and

a switch (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

Independent claim 50 recites a network comprising:

a series of nodes (Fig. 2, host blade 104; ¶0031), each having two ports;

a first fabric (Fig. 2, enterprise fabric 108; ¶0029); and

two Fibre Channel switches (Fig. 2, isolation switch blades 100A, 100B; ¶0031) connected to one port of each of said series of nodes and to said first fabric, each said switch including:

a plurality of F_ports (Fig. 1, F_ports; ¶0029) coupled to said one port of said series of nodes;

at least one N_port (Fig., Virtual N_port; ¶0029) connected to said first fabric; and

a switch circuit (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

Independent claim 61 recites a network comprising:

a series of nodes (Fig. 4, host blades 104A-D; ¶0039), each having two ports

first and second fabrics (Fig. 4, 108A, Fabric B, 108B; ¶0039); and

two data switching devices (Fig. 4, isolation switch blades 100A, 100B; ¶0039), each connected to one port of each of said series of nodes and to said first and second fabrics, each said device including:

a plurality of fabric ports (Fig. 4, FP1-FP4; ¶0029) coupled to said one port of said series of nodes;

two node ports (Fig. 4, NVP1, NVP2; ¶0029), one connected to each of said first and second fabrics; and

a switch (Fig. 4, switch in ISB1 or ISB2; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of fabric ports and said two node ports for interconnecting said ports.

Independent claim 71 recites a network comprising:

a series of nodes (Fig. 4, host blades 104A-D; ¶0039), each having two ports;

first and second fabrics (Fig. 4, 108A, Fabric B, 108B; ¶0039); and

two Fibre Channel switches (Fig. 4, isolation switch blades 100A, 100B; ¶0039) connected to one port of each of said series of nodes and to said first and second fabrics, each said switch including:

a plurality of F_ports (Fig. 4, FP1-FP4; ¶0029) coupled to said one port of said series of nodes;

two N_ports (Fig. 4, NVP1, NVP2; ¶0029), one connected to each of said first and second fabrics; and

a switch circuit (Fig. 4, switch in ISB1 or ISB2; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of F_ports and said two N_ports for interconnecting said ports.

Independent claim 81 recites a network comprising:

a series of nodes (Fig. 5, host blades 104A-D; ¶0040), each having two ports;

first and second fabrics (Fig. 5, Fabric A 108A, Fabric B 108B; ¶0040); and

two data switching devices (Fig. 5, ISB1 100A, ISB2 100B; ¶0040), each connected to one port of each of said series of nodes and to one of said first and second fabrics, each said device including:

a plurality of fabric ports (Fig. 5, FP1-FP4; ¶0029) coupled to said one port of said series of nodes;

two node ports (Fig. 5, NPV1, NPV2; ¶0029) connected to one of said first and second fabrics; and

a switch (Fig. 5, switch in ISB1 or ISB2; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of fabric ports and said two node ports for interconnecting said ports.

Independent claim 91 recites a network comprising:

a series of nodes (Fig. 5, host blades 104A-D; ¶0040), each having two ports;

first and second fabrics (Fig. 5, Fabric A 108A, Fabric B 108B; ¶0040); and

two Fibre Channel switches (Fig. 5, ISB1 100A, ISB2 100B; ¶0040) connected to one port of each of said series of nodes and to one of said first and second fabrics, each said switch including:

a plurality of F_ports (Fig. 5, FP1-FP4; ¶0029) coupled to said one port of said series of nodes;

two N_ports (Fig. 5, NPV1, NPV2; ¶0029) connected to one of said first and second fabrics; and

a switch circuit (Fig. 5, switch in ISB1 or ISB2; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046) coupled to said plurality of F_ports and said two N_ports for interconnecting said ports.

Independent claim 101 recites a method for routing between a series of nodes (Fig. 1, host blades 104; ¶0029) and a first fabric Fig. 1, enterprise fabric 108; ¶0029) using a data switching device (Fig. 1, isolation blade 100; ¶¶0029, 0030), the method comprising:

providing a plurality of fabric ports (Fig. 1, F_ports; ¶0029) on the device for coupling to the series of nodes;

providing at least one node port (Fig., Virtual N_port; ¶0029) on the device for connecting to the first fabric; and

interconnecting said plurality of fabric ports and said at least one node port with the device (Fig. 1, switch; Fig. 6B, Fibre Channel Miniswitch 414; ¶0046).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 5-10, 13-18, 21-29, 32-40, 43-51, 54-62, 65-72, 75-82, 85-92 and 95-117 were rejected under § 103 over U.S. Patent No. 6,763,417 to Paul.

Claims 3, 4, 11, 12, 19, 20, 30, 31, 41, 42, 52, 53, 63, 64, 73, 74, 83, 84, 93 and 94 were rejected under § 103 over Paul in view of U.S. Patent No. 7,107,347 to Cohen.

VI. ARGUMENT

The claims do not stand or fall together. Instead, Appellants present separate arguments for various independent and dependent claims. After a concise discussion of cited art, each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 CFR § 41.37(c)(l)(vii).

A. Claims 1, 2, 5-10, 13-18, 21-29, 32-40, 43-51, 54-62, 65-72, 75-82, 85-92 and 95-117 were rejected under § 103 over U.S. Patent No. 6,763,417 to Paul

Applicants begin by repeating the arguments made in prior responses, as those remarks are still submitted as being appropriate. Applicants provide specific comments to the remarks provided in the Final Office Action and in the Advisory Action.

1. Claims 1, 9, 17, 28, 39, 61, 71, 81, 91 and 101

One common element in these claims is either a switching device, switch or method of operating a switch, with the switching device or switch having fabric or F_ports, a node or N_port and a switch or switch circuit interconnecting the ports. That portion of each claim has been rejected over Paul. Applicants submit that the Final Office Action errs in several places when rejecting these common elements. Using claim 28 as exemplary, the claim requires "at least one N_port connected to said first fabric." The Final Office Action has equated this port to an SL_port or E_port as mentioned in Paul and then makes the unsupported allegation that the modification to an N_port would be obvious.

Addressing the remarks out of order, Applicants submit that the unsupported allegation to modify an SL_port or E_port to an N_port is improper. First, no support is provided for this allegation. To form a proper rejection, some support is needed for each allegation. As there is no support for this conclusory statement, the rejection is improper on its face.

The rejection may in part be based on a belief that port types are simply interchangeable. Applicants submit that belief is wrong when discussing Fibre Channel ports. The type of port effectively defines required functionality of that port. An N_port is to provide the functionality of a node, such as initiating login requests and the like. An F_port is to provide complementary

functions to the N_port functions. For example, when an N_port provides a fabric login request, the F_port must interact with various items in the fabric, such as the name server, and return the appropriate information to the N_port. An E_port is used to interconnect to switches which form at least a portion of a fabric. E_ports have a totally different functionality than N_ports or F_ports. E_ports exchange numerous messages relating to fabric configuration and operation. An E_port would never provide a login request or respond to a login request as an E_port does not perform those functions. Similarly, N_ports and F_ports would not be able to provide or respond to the fabric configuration messages of E_ports. Therefore the designations of ports are not mere labels but indeed indicate particular functions which must be performed by the ports. N_ports, F_ports and E_ports are not the same and clearly are not interchangeable. Therefore the statement regarding the motivation to modify Paul ("the port functionality of connecting to a fabric remains the same") is simply erroneous.

SL_ports are not standardized Fibre Channel ports, so reference must be made to Paul to determine the functions of an SL_port. Referring to col. 6, lines 27-33, an SL_port "allows several smaller private loops to be connected through the FCPA to create a bigger loop." This sentence is effectively repeated at col. 8, lines 57-59 cited in the Final Office Action. The col. 6 sentence is very enlightening. The SL_port connects private loops. Thus its operation and function is actually totally opposite of that needed to connect to a fabric, as required in the claim. By definition in Fibre Channel, private devices and private loops cannot operate on a fabric. Private devices only use the lowest 8 bits of the Fibre Channel address bits. Thus operation on a fabric, which requires use of the upper 16 bits of the address, is effectively impossible. With the SL_ports connecting private loops, fabric operation cannot be done. Thus an SL_port could not connect to a fabric as alleged in the Final Office Action. And clearly an SL_port would never be modified to an N_port which is for fabric connection as required in the claim.

Applicants further submit that an E_port is not really a port for connection to a fabric, at least not in the sense of an N_port connecting to a fabric. E_ports are used to form interswitch links (ISLs) between switches to actually form a fabric. While a fabric may be pre-existing when two switches are connected using E_ports, the fabric actually extends to include the new switch with the edge of the fabric thus moving from one switch to the next. When an N_port is

connected to a fabric, the fabric does not extend to the node but remains at its same extent. Thus connecting an E_port is very different from connecting an N_port and clearly not analogous or sufficient to render the claim obvious.

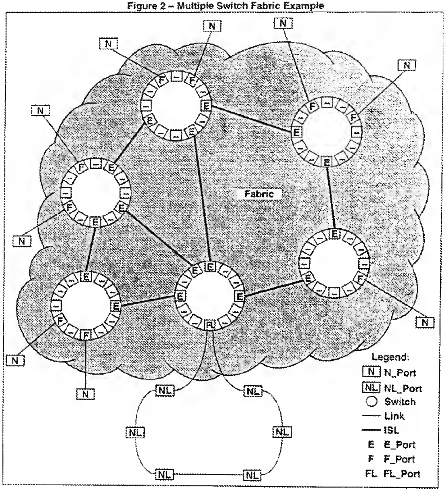
Final Office Action Remarks

The Final Office Action responded to the above arguments by stating:

> The applicant(s) argue equating various ports to N_ports as being obvious is unsupported and therefore improper. In response, N_ports (node port) within the element of a Fibre Channel port is merely a port used for connecting to a F_port (fabric port) such that one node may communicate with another node via one or more FCPA (see col.8, lines 34-38). Paul teaches such FCPA's can be connected together to cascade fibre channel switches via a reconfigured E_port (see col.8, lines 62-67). Therefore, when one switch is connecting to another fabric, one of ordinary skill in the art will concur that the switch is another node and the N_port recited is the same as the E_port taught by Paul. Clearly there is sufficient support for the obviousness and therefore the rejection is maintained. The claims are not directed to a novel invention because the applicant(s) claim merely connecting various ports (architecture) within a Fibre Channel network without reciting specific inventive functionality.
>
> Furthermore, the features upon which applicant relies (i.e., "initiating login requests") are not recited in the rejected claim(s). Although this feature can be found in N_ports, such features are not performed because it is not recited. Therefore, just because various functions can be performed does not mean they are and without evidence to support that E_ports are not able to provide the same function of that of N_ports, obviousness will always exist.

As can be seen, the remarks specifically argue that an "N_port recited is the same as the E_Port taught by Paul." One skilled in the Fibre Channel area would understand this to be a wholly improper statement. To support this position, Applicants provide relevant portions of various Fibre Channel specifications, which were previously provided in the Information Disclosure Statement filed May 22, 2008.

Figure 2 – Multiple Switch Fabric Example



This figure from FC-SW, p. 11, provides a good overview of the industry standard relationships between the various port types. As can be seen, N_ports are those on the node devices which attach to the fabric. F_ports are the ports on the switches which connect to the N_ports. E_ports are used to interconnect switches to form the fabric. The following portions of the FC-FG specification are similar.

4.1 Fabric and Fabric Elements

The Fabric is a transport medium that provides switched interconnect between multiple link attachment points called N_Ports. The extent of the Fabric is limited to those Ports that can be addressed by unique values of the 24-bit Port Identifier.

NOTE – In the Fibre Channel context, fabric written with a lower-case 'f' embraces the interconnect of any ports within the 24-bit address space; Fabric written with a capital 'F' describes topologies distinct from Point-to-point topology and Arbitrated Loop topology (see 4.8 of ANSI X3.230, FC-PH). This document describes the Fabric of FC-PH.

A Fabric may be composed of one or more Fabric Elements as illustrated in figure 2. The link attachment point between the Fabric Element and an N_Port is called the F_Port. The link attachment point between one Fabric Element and another Fabric Element is called the E_Port. The link between Fabric Elements is called an Inter-Element Link (IEL).

The Fabric has characteristics defined in terms of the transport services provided on a bidirectional link between the Link Control Facility within a node N_Port and the Link Control Facility within the Fabric F_Port. The Fabric provides transport services by routing frames between F_Ports.

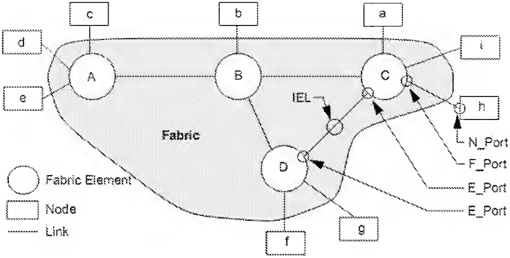


Figure 2 – Fabric model

FC-FG, p. 6

Portions from the FC-PH specification are similar.

4.5 FC-PH physical model

Figure 12 depicts the FC-PH physical model and illustrates the FC-PH physical structure and components. The Fibre Channel (FC) physically consists of a minimum of two Nodes, each with a minimum of one N_Port interconnected by a pair of fibres - one outbound and the other inbound at each N_Port. This pair of unidirectional fibres transmitting in opposite directions with their associated transmitters and receivers is referred to in FC-PH as a link. The link is used by the interconnected N_Ports to perform data communication.

Physical equipment such as a processor, controller, or terminal can be interconnected to other physical equipment through these links. Attached physical equipment supports one or more Nodes and each Node contains one or more N_Ports, with each N_Port containing a transmitter and a receiver.

The physical model shown in figure 12 is inherently capable of simultaneous, symmetrical bidirectional flow. A Fabric may be present between the N_Ports and some Fabrics may not support this type of flow. From the perspective of a given N_Port, for instance A(1) or B(1), its transmitter sends Data frames on the outbound fibre and its receiver receives the responses on the inbound fibre.

In Class 1 service, an N_Port logically performs a point-to-point communication with another N_Port at any given time. This statement is true regardless of the presence of Fabric. However, multiple N_Ports in a Node can simultaneously perform data transfers in parallel with single or multiple N_Ports contained in one or more Nodes (see 4.9.1 and clause 22 for Class of service description).

In Class 2 and Class 3 service, an N_Port may multiplex frames to or demultiplex frames from multiple N_Ports (see 4.9.2, 4.9.3, and clause 22 for Class of service description).

This structure provides the attached equipment flexible mechanisms to perform simultaneous data transfers in parallel, to or from, single or multiple equipments.

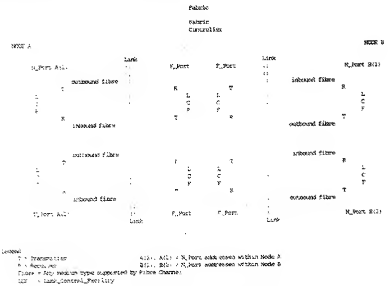
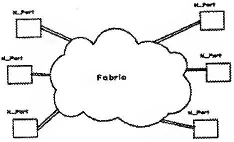


Figure 12 - FC-PH physical model

FC-PH, p. 19

4.8.2 Fabric topology

This topology uses the Destination_Identifier (D_ID) embedded in the Frame_Header to route the frame through a Fabric to the desired destination N_Port. Figure 14 illustrates multiple N_Ports interconnected by a Fabric.



FC-PH, p. 21

These match the definitions for the ports.

3.1.63. **F_Port:** The Link_Control_Facility within the Fabric which attaches to an N_Port through a link. An F_Port is addressable by the N_Port attached to it, with a common well-known address identifier (hex 'FFFFFE') (see 18.3, local F_Port, and remote F_Port).

3.1.64. **Fabric:** The entity which interconnects various N_Ports attached to it and is capable of routing frames by using only the D_ID information in a FC-2 frame header.

3.1.92 Link_Control_Facility: A link hardware facility which attaches to an end of a link and manages transmission and reception of data. It is contained within each N_Port and F_Port.

3.1.107. **N_Port:** A hardware entity which includes a Link_Control_Facility. It may act as an Originator, a Responder, or both.

FC-PH, p. 6-8

3.1.14 E_Port: As defined in FC-FG (see reference [5]), a Fabric "Expansion" Port which attaches to another E_Port to create an Inter-Switch Link.

3.1.18 F_Port: As defined in FC-PH (see reference [1]). In this Standard, an F_Port is assumed to always refer to a port to which non-loop N_Ports are attached to a Fabric, and does not include FL_Ports.

3.1.19 Fabric: As defined in FC-FG (see reference [5]), an entity which interconnects various Nx_Ports attached to it and is capable of routing frames using only the D_ID information in an FC-2 frame header.

3.1.34 N_Port: As defined in FC-PH (see reference [1]). In this Standard, an N_Port is assumed to always refer to a direct Fabric-attached port, and does not include NL_Ports.

3.1.55 Switch Port: An E_Port, F_Port, or FL_Port.

FC-SW, pp. 3-5.

4.5 Switch Ports

A Switch shall have three or more Switch Ports. A Switch equipped only with F_Ports or FL_Ports forms a non-expandable Fabric. To be part of an expandable Fabric, a Switch shall incorporate at least one Switch Port capable of E_Port operation.

A Switch Port supports one or more of the following Port Modes: E_Port, F_Port, FL_Port. A Switch Port that is capable of supporting more than one Port Mode attempts to configure itself first as an FL_Port (as defined in FC-AL), then as an E_Port (as defined in this Standard), and finally as an F_Port (as defined in FC-PH), depending on which of the three Port Modes are supported by the Switch Port.

The detailed procedure is described in 7.1.

4.5.1 F_Port

An F_Port is the point at which all frames originated by an N_Port enter the Fabric, and all frames destined for an N_Port exit the Fabric. An F_Port may also be the Fabric entry point for frames originated by an N_Port destined for an internal Fabric destination, such as the Fabric Controller. Similarly, an F_Port may also be the Fabric exit point for frames originated internal to the Fabric and destined for an N_Port. Frames shall not be communicated across a Link between an F_Port and anything other than an N_Port.

F_Ports are described in detail in 5.2.

4.5.2 FL_Port

An FL_Port is the point at which all frames originated by an NL_Port enter the Fabric, and all frames destined for an NL_Port exit the Fabric. An FL_Port may also be the Fabric entry point for frames originated by an NL_Port destined for an internal Fabric destination, such as the Fabric Controller. Similarly, an FL_Port may also be the Fabric exit point for frames originated internal to the Fabric and destined for an NL_Port. Frames shall not be communicated across a Link between an FL_Port and anything other than an NL_Port.

FL_Ports are described in detail in 5.3.

4.5.3 E_Port

An E_Port is the point at which frames pass between the Switches within the Fabric. Frames with a destination other than the local Switch or any N_Port or NL_Port attached to the local Switch exit the local Switch through an E_Port. Frames that enter a Switch via an E_Port are forwarded to a local destination, or are forwarded towards their ultimate destination via another E_Port. Frames shall not be communicated across a Link between an E_Port and anything other than an E_Port.

E_Ports are described in detail in 5.4.

FC-SW, p. 13

5.2 F_Port Operation

An F_Port is the point at which an external N_Port is attached to the Fabric. It normally functions as a conduit to the Fabric for frames transmitted by the N_Port, and as a conduit from the Fabric for frames destined for the N_Port.

FC-SW, p. 17

5.4 E_Port Operation

An E_Port is the point at which a Switch is connected to another Switch to create a Fabric. It normally functions as a conduit between the Switches for frames destined for remote N_Ports and NL_Ports. An E_Port is also used to carry frames between Switches for purposes of configuring and maintaining the Fabric.

FC-SW, p. 21

From these materials it is submitted that it is very clear that N_ports, F_ports and E_ports have very distinct operations and are clearly not substitutable as proposed in the Final Office Action remarks.

Addressing some of the specific items in the remarks, Applicants address the statement "Paul teaches such FCPA's can be connected together to cascade Fibre Channel switches via a reconfigured E_port," citing Paul, Col. 8, lines 62-67. Those lines in Paul are reproduced here:

> required. The third type of port that equipment may support is the E_Port. This interface is used when cascading fibre channel switches. The FCPA port and the port that are linked together discover that each is a switch port and configure themselves as E_Ports. Systems integrators use this capability to build large fabrics.

The section in Paul is discussing normal port initialization operations, which, as noted in 4.5 Switch Ports at FC-SW, p. 13 as copied above, have a switch port step through FL_port, then E_port and finally F_port modes during configuration. The sentence in Paul does not suggest that the ports are equivalent, just that they can take one of several allowable forms. Normally these forms are FL_port, E_port and F_port as noted, with Paul adding TL_ports and SL_ports to the mix. Never is there a suggestion that a switch port would have an N_port as a possible form.

The remarks also state: "Therefore, when one switch is connecting to another fabric, one of ordinary skill in the art will concur that the switch is another node and the N_port recited is

the same as the E_port taught by Paul." Applicants submit that one skilled in the art would not concur that the switch is another node. The switch is a switch and the switch port will end up an E_port as discussed above. This is fundamental to the normal operation of a switch and Paul teaches nothing different. The Final Office Action remarks seem to indicate a belief that any device that connects to a fabric is a node but such is not the case. When a switch connects to a fabric, the interconnected ports configure as E_ports and the added switch becomes part of and extends the fabric. Thus the switch is not a node and would not stay a node. Therefore the apparent belief that the switch would somehow have an N_port is improper and thus the premise that N_ports and E_ports are the same is improper, clearly not being suggested by Paul or the various Fibre Channel specifications.

The Advisory Action states that "one of ordinary skill in the art would employ a switch (subjective) for the nodes 120, 122, 124, 126, 128, 130 (See Fig. 2)." Applicants submit that this is a further unsupported conclusion that completely ignores the functions of switches and nodes in a Fibre Channel environment. Applicants provide here col. 2, lines 8-21 of Paul which describe Figure 2.

> FIG. **2** illustrates a block diagram of representative fibre channel architecture in a fibre channel network **100**. A workstation **120**, a mainframe **122** and a super computer **124** are interconnected with various subsystems (e.g., a tape subsystem **126**, a disk subsystem **128**, and a display subsystem **130**) via a fibre channel fabric **110** (i.e. a collection of fibre channel switches). The fabric **110** is an entity that interconnects various node-ports (N-ports) **140** and their associated workstations, mainframes and peripherals attached to the fabric **110** through the F-ports **142**. The essential function of the fabric **110** is to receive frames of data from a source N-port and, using a first protocol, route the frames to a destination N-port. The first protocol is, e.g., the fibre channel protocol.

As can be seen, Paul has specific recitations for elements 120, 122, 124, 126, 128 and 130, namely workstation, mainframe, super computer, tape subsystem, disk subsystem and

display subsystem, respectively. Each element includes a node-port or N_port 140 to attach to the fabric 110. The fabric 110 is a collection of Fibre Channel switches. Thus, Paul clearly places N_ports in the elements, thus making them nodes. If a switch were somehow used in place of the N_port as proposed in the Advisory Action, the element would then just form a portion of the fabric 110. Indeed, the functionality of Paul would be destroyed as the elements 120-130 would not have the capability to be addressed, being merely switches, and thus none of the elements 120-130 could communicate with each other. The statement in the Advisory Action is unsupported by any citation, and could not be as it is simply incorrect.

The Final Office Action remarks conclude by stating that the features relied on by Applicants are not recited in the claims. Applicants first note that the remarks above relating to the various functions of the different ports are not being relied on to distinguish Paul. They are being used as support for the position that one skilled in Fibre Channel would not consider the various ports, N_port, E_port and SL_port to be equivalent or replaceable. The various functions mentioned are those which are required for operation as a particular type of port by the various Fibre Channel specifications, which one skilled in Fibre Channel would be aware of. Knowing those requirements is one reason a person skilled in Fibre Channel would not consider the port types to be equivalent as argued in the Final Office Action.

The Advisory Action states that "N_ports are Fibre Channel interfaces which acts as an Originator, a Responder, or both, and connects to F_ports." Applicants submit that this is an admission that the original basis of rejection in the Final Office Action, that the SL_ports or E_ports could be modified to N_ports, is wrong. The Advisory Action states an N_port connects to an F_port. However, the SL_ports and E_ports of Paul do not connect to F_ports. E_ports connect only to E_ports. SL_ports effectively replace FL_ports, so they would never connect to an F_port, only to NL_ports. Therefore, the admitted requirements of an N_port directly oppose the alleged ports being modified, resulting in an admission that the basic rejection is improper.

The various claims all require a switching device, switch or method of operating a switch, with the switching device or switch having a) fabric or F_ports, b) a node or N_port and c) a switch or switch circuit interconnecting the ports, a configuration of ports not taught or suggested in Paul, particularly when considered by one skilled in Fibre Channel. Applicants

therefore submit that in the rejections a required element is missing when the teachings of Paul are properly considered.

2. Claims 17, 28, 39, and 50

The above arguments use claim 28 as exemplary and therefore correspond directly to claim 28 and very closely for claims 17, 39 and 50. Applicants respectfully submit that the rejections are improper and request reversal.

3. Claims 1, 9 and 101

Applicants submit that the above arguments apply equally to claims 1, 9 and 101. Further, Applicants submit that the preamble should be accorded patentable weight in this instance.

In this case, the preamble does not just recite a purpose or intended use. The preamble defines the environment in which the claimed switching device will operate, namely with a series of nodes and a first fabric. Indeed, these two items are recited in the body of the claims. Ignoring the preamble terms then would ignore these items and the required operation of the body elements with the preamble items would be left undefined. Proper interpretation of the body elements requires giving meaning to series of nodes and first fabric. As these terms are in the preamble, they must be given patentable weight. Therefore, the arguments made above with regard to claim 28 apply completely when the preamble is properly construed so that claims 1, 9 and 101 are allowable.

4. Claims 61, 71, 81, and 91

The arguments made with regard to claim 28 apply equally so that claims 61, 71, 81, and 91 are patentable. Further, claims 61, 71, 81, and 91 all require a second fabric. The Final Office Action simply uses a definition of a fabric to support rejecting this requirement for two fabrics. Paul only shows examples with a single fabric, not dual fabrics. While the definition of a fabric would apply to each fabric, the definition alone is insufficient to teach two fabrics, particularly when the specific connections between the node ports, the fabrics and the switching

devices or switches is considered. Neither the Final Office Action nor the Advisory Action provides any response to this argument. As a result, claims 61, 71, 81, and 91 are allowable.

5. Claims 2, 10, 18, 29, 40, 51, 62, 72, 82, 92 and 102

Claims 2, 10, 18, 29, 40, 51, 62, 72, 82, 92 and 102 all require the node or N_port to operate as a virtual node or N_port, with one virtual node or N_port address per fabric or F_port. The Final Office Action has cited to col. 3, lines 64-66 of Paul for the requirement of the node port operating as a virtual node port. Applicants do not understand this citation. Col. 3, lines 64-66 is part of the brief description of Figs. 3-5 and as such is not relevant. Applicants have reviewed lines 64-66 in each column in the patent and do not find any of them that appear relevant. The Final Office Action further cites to col. 12, lines 35-45 for the requirement of one virtual node address for each of the plurality of fabric ports connected to the numbers. This section of Paul describes an additional header used only internal to the Paul device and not relevant to the addresses of any of the external ports. Even then, the port IDs as identified on TABLE 2 (bits 0:5 of the first half word as noted in line 39) only provides for 64 addresses, effectively matching the 64 quid port boards shown in Fig. 4 of Paul. Thus these bits further cannot correspond to virtual node addresses as they simply are too short. Neither the Final Office Action nor the Advisory Action provides any response to this argument. The rejections are improper and must be reversed.

6. Claims 107-117

Applicants submit these rejections are improper. As to claims 107-112 and 117, the arguments of claims 61, 71, 81, and 91 apply, further indicating no teaching of the required second fabric. The citation to col. 8, lines 38-41 just describes the fabric that interconnects the various F_ports of Paul, the single fabric described in Paul. The lines do not teach or suggest the required second fabric. As to claims 113-116, a third fabric is required. As the arguments to claims 61, 71, 81, and 91 show, Paul does not teach the required second fabric, much less a third fabric. Neither the Final Office Action nor the Advisory Action provides any response to this argument. Reversal of the rejections is requested.

7. Claims 5-8, 13-16, 21-27, 32-38, 43-49, 54-60, 65-70, 75-80, 85-90, 95-100 and 103-106

Claims 5-8, 13-16, 21-27, 32-38, 43-49, 54-60, 65-70, 75-80, 85-90, 95-100 and 103-106 all depend from allowable claims and therefore are allowable.

B. Claims 3, 4, 11, 12, 19, 20, 30, 31, 41, 42, 52, 53, 63, 64, 73, 74, 83, 84, 93 and 94 were rejected under § 103 over Paul in view of U.S. Patent No. 7,107,347 to Cohen

Claims 3, 4, 11, 12, 19, 20, 30, 31, 41, 42, 52, 53, 63, 64, 73, 74, 83, 84, 93 and 94 all depend from allowable claims and therefore are allowable.

C. Conclusion

For the reasons stated above, Appellants respectfully submit that the Examiner erred in rejecting claims 1-117, and respectfully request reversal of the rejections of these claims. Appellants believe that no extensions of time or fees are required, beyond those that may otherwise be provided in documents accompanying this response. Nonetheless, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Wong Cabello's Deposit Account No. 50-1922, referencing docket number 112-0136US.

Respectfully submitted,

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Filed Electronically

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VII. CLAIMS APPENDIX

1. (Previously Presented) A data switching device for connecting to a series of nodes and to a first fabric, the device comprising:

a plurality of fabric ports for coupling to the series of nodes;

at least one node port for connecting to the first fabric; and

a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

2. (Original) The device of claim 1, wherein said at least one node port operates as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

3. (Original) The device of claim 1, wherein said switch is further adapted to act as a firewall.

4. (Original) The device of claim 1, wherein said switch is further adapted for intrusion detection.

5. (Original) The device of claim 1, further comprising:

at least one intermediate port coupled to said switch, wherein said switch routes frames between said plurality of fabric ports and said at least one node port through said at least one intermediate port.

6. (Previously Presented) The device of claim 5, wherein the interconnection between said at least one intermediate port and either said plurality of fabric ports or said at least one node port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

7. (Original) The device of claim 5, wherein the number of intermediate ports equals the number of node ports.

8. (Original) The device of claim 1, wherein said switch performs public to private and private to public address translations between said plurality of fabric ports and said at least one node port.

9. (Previously Presented) A Fibre Channel switch for connecting to a series of nodes and to a first fabric, the switch comprising:

a plurality of F_ports for coupling to the series of nodes;

at least one N_port for connecting to the first fabric; and

a switch circuit coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

10. (Original) The switch of claim 9, wherein said at least one N_port operates as a virtual node port, with one virtual node address for each of said plurality of F_ports connected to nodes.

11. (Original) The switch of claim 9, wherein said switch circuit is further adapted to act as a firewall.

12. (Original) The switch of claim 9, wherein said switch circuit is further adapted for intrusion detection.

13. (Original) The switch of claim 9, further comprising:

at least one intermediate port coupled to said switch circuit, wherein said switch circuit routes frames between said plurality of F_ports and said at least one N_port through said at least one intermediate port.

14. (Original) The switch of claim 13, wherein the interconnection between said at least one intermediate port and either said plurality of F_ports or said at least one N_port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

15. (Original) The switch of claim 13, wherein the number of intermediate ports equals the number of N_ports.

16. (Original) The switch of claim 9, wherein said switch circuit performs public to private and private to public address translations between said plurality of F_ports and said at least one N_port.

17. (Previously Presented) A network comprising:

a series of nodes;

a first fabric; and

a data switching device connected to said series of nodes and to said first fabric, said device including:

a plurality of fabric ports coupled to said series of nodes;

at least one node port connected to said first fabric; and

a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

18. (Original) The network of claim 17, wherein said at least one node port operates as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

19. (Original) The network of claim 17, wherein said switch is further adapted to act as a firewall.

20. (Original) The network of claim 17, wherein said switch is further adapted for intrusion detection.

21. (Previously Presented) The network of claim 17, said data switching device further comprising:

at least one intermediate port coupled to said switch, wherein said switch routes frames between said plurality of fabric ports and said at least one node port through said at least one intermediate port.

22. (Previously Presented) The network of claim 21, wherein the interconnection between said at least one intermediate port and either said plurality of fabric ports or said at least one node port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

23. (Original) The network of claim 21, wherein the number of intermediate ports equals the number of node ports.

24. (Original) The network of claim 17, wherein said switch performs public to private and private to public address translations between said plurality of fabric ports and said at least one node port.

25. (Original) The network of claim 17, wherein said nodes are host computers.

26. (Original) The network of claim 25, wherein said host computers are blade computers and are located in a blade server chassis.

27. (Original) The network of claim 26, wherein said data switching device is a blade located in said blade server chassis.

28. (Previously Presented) A network comprising:

a series of nodes;

a first fabric; and

a Fibre Channel switch connected to said series of nodes and to said first fabric, said switch including:

a plurality of F_ports coupled to said series of nodes;

at least one N_port connected to said first fabric; and

a switch circuit coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

29. (Original) The network of claim 28, wherein said at least one N_port operates as a virtual node port, with one virtual node address for each of said plurality of F_ports connected to nodes.

30. (Original) The network of claim 28, wherein said switch circuit is further adapted to act as a firewall.

31. (Original) The network of claim 28, wherein said switch circuit is further adapted for intrusion detection.

32. (Previously Presented) The network of claim 28, said Fibre Channel switch further comprising:

at least one intermediate port coupled to said switch circuit, wherein said switch circuit routes frames between said plurality of F_ports and said at least one N_port through said at least one intermediate port.

33. (Original) The network of claim 32, wherein the interconnection between said at least one intermediate port and either said plurality of F_ports or said at least one N_port is a

private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

34. (Original) The network of claim 32, wherein the number of intermediate ports equals the number of N_ports.

35. (Original) The network of claim 28, wherein said switch circuit performs public to private and private to public address translations between said plurality of F_ports and said at least one N_port.

36. (Original) The network of claim 28, wherein said nodes are host computers.

37. (Original) The network of claim 36, wherein said host computers are blade computers and are located in a blade server chassis.

38. (Original) The network of claim 37, wherein said data switching device is a blade located in said blade server chassis.

39. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

a first fabric; and

two data switching devices, each connected to one port of each of said series of nodes and to said first fabric, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

at least one node port connected to said first fabric; and

a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports.

40. (Original) The network of claim 39, wherein said at least one node port operates as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

41. (Original) The network of claim 39, wherein said switch is further adapted to act as a firewall.

42. (Original) The network of claim 39, wherein said switch is further adapted for intrusion detection.

43. (Previously Presented) The network of claim 39, said data switching device further comprising:

at least one intermediate port coupled to said switch, wherein said switch routes frames between said plurality of fabric ports and said at least one node port through said at least one intermediate port.

44. (Previously Presented) The network of claim 43, wherein the interconnection between said at least one intermediate port and either said plurality of fabric ports or said at least one node port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

45. (Original) The network of claim 43, wherein the number of intermediate ports equals the number of node ports.

46. (Original) The network of claim 39, wherein said switch performs public to private and private to public address translations between said plurality of fabric ports and said at least one node port.

47. (Original) The network of claim 39, wherein said nodes are host computers.

48. (Original) The network of claim 47, wherein said host computers are blade computers and are located in a blade server chassis.

49. (Original) The network of claim 48, wherein each said data switching device is a blade located in said blade server chassis.

50. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

a first fabric; and

two Fibre Channel switches connected to one port of each of said series of nodes and to said first fabric, each said switch including:

a plurality of F_ports coupled to said one port of said series of nodes;

at least one N_port connected to said first fabric; and

a switch circuit coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports.

51. (Original) The network of claim 50, wherein said at least one N_port operates as a virtual node port, with one virtual node address for each of said plurality of F_ports connected to nodes.

52. (Original) The network of claim 50, wherein said switch circuit is further adapted to act as a firewall.

53. (Original) The network of claim 50, wherein said switch circuit is further adapted for intrusion detection.

54. (Previously Presented) The network of claim 50, said Fibre Channel switch further comprising:

at least one intermediate port coupled to said switch circuit, wherein said switch circuit routes frames between said plurality of F_ports and said at least one N_port through said at least one intermediate port.

55. (Original) The network of claim 54, wherein the interconnection between said at least one intermediate port and either said plurality of F_ports or said at least one N_port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

56. (Original) The network of claim 54, wherein the number of intermediate ports equals the number of N_ports.

57. (Original) The network of claim 50, wherein said switch circuit performs public to private and private to public address translations between said plurality of F_ports and said at least one N_port.

58. (Original) The network of claim 50, wherein said nodes are host computers.

59. (Original) The network of claim 58, wherein said host computers are blade computers and are located in a blade server chassis.

60. (Original) The network of claim 59, wherein said data switching device is a blade located in said blade server chassis.

61. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two data switching devices, each connected to one port of each of said series of nodes and to said first and second fabrics, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

two node ports, one connected to each of said first and second fabrics; and

a switch coupled to said plurality of fabric ports and said two node ports for interconnecting said ports.

62. (Original) The network of claim 61, wherein each of said node ports operates as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

63. (Original) The network of claim 61, wherein said switch is further adapted to act as a firewall.

64. (Original) The network of claim 61, wherein said switch is further adapted for intrusion detection.

65. (Original) The network of claim 61, further comprising:

two intermediate ports coupled to said switch, wherein said switch routes frames between said plurality of fabric ports and said two node ports through one of said intermediate ports.

66. (Previously Presented) The network of claim 65, wherein the interconnection between each of said intermediate ports and either said plurality of fabric ports or said node ports is a private interconnection and said intermediate ports and said other ports perform public to private and private to public address translations.

67. (Original) The network of claim 61, wherein said switch performs public to private and private to public address translations between said plurality of fabric ports and said node ports.

68. (Original) The network of claim 61, wherein said nodes are host computers.

69. (Original) The network of claim 68, wherein said host computers are blade computers and are located in a blade server chassis.

70. (Original) The network of claim 69, wherein each said data switching device is a blade located in said blade server chassis.

71. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two Fibre Channel switches connected to one port of each of said series of nodes and to said first and second fabrics, each said switch including:

a plurality of F_ports coupled to said one port of said series of nodes;

two N_ports, one connected to each of said first and second fabrics; and

a switch circuit coupled to said plurality of F_ports and said two N_ports for interconnecting said ports.

72. (Original) The network of claim 71, wherein each of said N_ports operates as a virtual node port, with one virtual node address for each of said plurality of F_ports connected to nodes.

73. (Original) The network of claim 71, wherein said switch circuit is further adapted to act as a firewall.

74. (Original) The network of claim 71, wherein said switch circuit is further adapted for intrusion detection.

75. (Previously Presented) The network of claim 71, each Fibre Channel switch further comprising:

two intermediate ports coupled to said switch circuit, wherein said switch circuit routes frames between said plurality of F_ports and said two N_ports through one of said two intermediate ports.

76. (Original) The network of claim 75, wherein the interconnection between each of said intermediate ports and either said plurality of F_ports or said N_ports is a private interconnection and said intermediate ports and said other ports perform public to private and private to public address translations.

77. (Original) The network of claim 71, wherein said switch circuit performs public to private and private to public address translations between said plurality of F_ports and said N_ports.

78. (Original) The network of claim 71, wherein said nodes are host computers.

79. (Original) The network of claim 78, wherein said host computers are blade computers and are located in a blade server chassis.

80. (Original) The network of claim 79, wherein said data switching device is a blade located in said blade server chassis.

81. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two data switching devices, each connected to one port of each of said series of nodes and to one of said first and second fabrics, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

two node ports connected to one of said first and second fabrics; and

a switch coupled to said plurality of fabric ports and said two node ports for interconnecting said ports.

82. (Original) The network of claim 81, wherein each of said node ports operates as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

83. (Original) The network of claim 81, wherein said switch is further adapted to act as a firewall.

84. (Original) The network of claim 81, wherein said switch is further adapted for intrusion detection.

85. (Previously Presented) The network of claim 81, said data switching device further comprising:

two intermediate ports coupled to said switch, wherein said switch routes frames between said plurality of fabric ports and said two node ports through one of said intermediate ports.

86. (Previously Presented) The network of claim 85, wherein the interconnection between each of said intermediate ports and either said plurality of fabric ports or said node ports is a private interconnection and said intermediate ports and said other ports perform public to private and private to public address translations.

87. (Original) The network of claim 81, wherein said switch performs public to private and private to public address translations between said plurality of fabric ports and said node ports.

88. (Original) The network of claim 81, wherein said nodes are host computers.

89. (Original) The network of claim 88, wherein said host computers are blade computers and are located in a blade server chassis.

90. (Original) The network of claim 89, wherein each said data switching device is a blade located in said blade server chassis.

91. (Previously Presented) A network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two Fibre Channel switches connected to one port of each of said series of nodes and to one of said first and second fabrics, each said switch including:

a plurality of F_ports coupled to said one port of said series of nodes;

two N_ports connected to one of said first and second fabrics; and

a switch circuit coupled to said plurality of F_ports and said two N_ports for interconnecting said ports.

92. (Original) The network of claim 91, wherein each of said N_ports operates as a virtual node port, with one virtual node address for each of said plurality of F_ports connected to nodes.

93. (Original) The network of claim 91, wherein said switch circuit is further adapted to act as a firewall.

94. (Original) The network of claim 91, wherein said switch circuit is further adapted for intrusion detection.

95. (Previously Presented) The network of claim 91, said Fibre Channel switch further comprising:

two intermediate ports coupled to said switch circuit, wherein said switch circuit routes frames between said plurality of F_ports and said two N_ports through one of said two intermediate ports.

96. (Original) The network of claim 95, wherein the interconnection between each of said intermediate ports and either said plurality of F_ports or said N_ports is a private interconnection and said intermediate ports and said other ports perform public to private and private to public address translations.

97. (Original) The network of claim 91, wherein said switch circuit performs public to private and private to public address translations between said plurality of F_ports and said N_ports.

98. (Original) The network of claim 91, wherein said nodes are host computers.

99. (Original) The network of claim 98, wherein said host computers are blade computers and are located in a blade server chassis.

100. (Original) The network of claim 99, wherein said data switching device is a blade located in said blade server chassis.

101. (Previously Presented) A method for routing between a series of nodes and a first fabric using a data switching device, the method comprising:

providing a plurality of fabric ports on the device for coupling to the series of nodes;

providing at least one node port on the device for connecting to the first fabric; and

interconnecting said plurality of fabric ports and said at least one node port with the device.

102. (Original) The method of claim 101, further comprising operating said at least one node port as a virtual node port, with one virtual node address for each of said plurality of fabric ports connected to nodes.

103. (Original) The method of claim 101, further comprising:

routing frames between said plurality of fabric ports and said at least one node port through at least one intermediate port on the device.

104. (Previously Presented) The method of claim 103, wherein the interconnection between said at least one intermediate port and either said plurality of fabric ports or said at least one node port is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations.

105. (Original) The method of claim 103, wherein the number of intermediate ports equals the number of node ports.

106. (Original) The device of claim 101, further comprising performing public to private and private to public address translations between said plurality of fabric ports and said at least one node port.

107. (Previously Presented) The device of claim 1, wherein said plurality of fabric ports form a second fabric.

108. (Previously Presented) The switch of claim 9, wherein said plurality of F_ports form a second fabric.

109. (Previously Presented) The network of claim 17, wherein said plurality of fabric ports form a second fabric.

110. (Previously Presented) The network of claim 28, wherein said plurality of F_ports form a second fabric.

111. (Previously Presented) The network of claim 39, wherein each of said plurality of fabric ports form an additional fabric.

112. (Previously Presented) The network of claim 50, wherein each of said plurality of F_ports forms an additional fabric.

113. (Previously Presented) The network of claim 61, wherein each of said plurality of fabric ports forms an additional fabric.

114. (Previously Presented) The network of claim 71, wherein each of said plurality of F_ports forms an additional fabric.

115. (Previously Presented) The network of claim 81, wherein each of said plurality of fabric ports forms an additional fabric.

116. (Previously Presented) The network of claim 91, wherein each of said plurality of F_ports forms an additional fabric.

117. (Previously Presented) The method of claim 101, wherein said plurality of fabric ports forms a second fabric.

VIII. EVIDENCE APPENDIX

None.

IX. RELATED PROCEEDINGS APPENDIX

None.